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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,877	06/25/2003	Fred R. Wolf	1437	5242

27310 7590 04/06/2007

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EXAMINER	
AHMED, HASAN SYED	
ART UNIT	**PAPER NUMBER**
1615	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/606,877	WOLF ET AL.	
	Examiner	Art Unit	
	Hasan S. Ahmed	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,13-16,20,21 and 27-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,13-16,20,21 and 27-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. 3/20/07
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- Receipt is acknowledged of applicants' remarks, which were filed on 19 January 2007.
- The 35 USC 103(a) rejection over the Saunders reference alone is hereby withdrawn.
- The obviousness-type double patenting rejections over U.S. Patent No. 6,977,269 and copending Application No. 11/153,462 are hereby withdrawn.
- Claims 1, 2, 13, 14-16, 20, 21, and 27-29 remain rejected under 35 USC 103(a).

* * * * *

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 13, 14-16, 20, 21, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders, et. al. (U.S. Patent No. 6,977,269) in view of Eenennaam, et. al. (U.S. 2003/0154513).

Saunders, et. al. teach a method of improving the tissue quality of an animal (see col. 3, lines 18-21) – including the cattle of instant claim 13 (*see* col. 1, line 58) – by feeding the animal vitamin E (*see* col. 1, lines 41-43). "Vitamin E" is a term of art descriptive of a broad category of compounds, including α, β, γ, and δ tocotrienols and α, β, γ, and δ tocopherols (*see* Eenennaam, et. al. – paragraph 0004).

Saunders, et. al. further disclose improved color and reduced purge as measures of meat quality, as recited in instant claims 2 and 21 (*see* col. 1, lines 46-51).

The Saunders, et. al. reference differs from the instant application in that it does not disclose:

- the tocotrienols comprising a cereal grain crop genetically modified to have elevated mixed tocotrienol levels, as recited in instant claims 14, and 27;
- the corn of instant claims 15 and 28; and
- the oil of instant claims 16 and 29.

Eenennaam, et. al. teach transgenic plants modified to express polypeptides of the tocopherol biosynthesis pathway (*see* abstract).

The disclosure recites transgenic plants modified to have elevated mixed tocotrienol levels (*see* paragraphs 217-220). The plant may be the cereal grain crop corn of instant claims 14, 15, 27, and 28 (*see* paragraph 211).

The Eenennaam, et. al. reference teaches an animal diet comprising mixed tocotrienols comprising oil from a plant that has been genetically modified to have elevated mixed tocotrienol levels, as recited in instant claims 16 and 29.

While Eenennaam, et. al. do not explicitly teach all the instant claimed concentration of tocotrienols, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine suitable concentration through routine or manipulative experimentation to obtain the best possible results, as these are variable parameters attainable within the art.

Moreover, generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456; 105 USPQ 233, 235 (CCPA 1955). Applicants have not demonstrated any unexpected or unusual results, which accrue from the instant concentration.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use tocotrienols as a method of improving cattle meat quality, as taught by Saunders, et. al. in view of Eenennaam, et. al. One of ordinary skill in the art at the time the invention was made would have been motivated to add tocotrienols to an animal feed for the beneficial effects of improved meat quality, as explained by Saunders, et. al. and Eenennaam, et. al.

* * * * *

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1, 2, 12, 13, 14-16, 20, 21, and 27-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No. 11/153,463 ('463). Although the conflicting claims are not identical, they are not patentably distinct from each other because '463 claims a method of improving the tissue quality of an animal, including ruminant animals, using mixed tocotrienols. *See* claims 1, 12, and 19.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*

2. Claims 1, 2, 12, 13, 14-16, 20, 21, and 27-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/530,075 ('075). Although the conflicting claims are not identical, they are not patentably distinct from each other because '075 claims a method of improving the tissue quality of an animal, including ruminant animals, using mixed tocotrienols. *See* claims 1, 10, and 13.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

* * * * *

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Lanari, M. C., et al., *Effect of Dietary tocopherols and tocotrienols on the antioxidant status and lipid stability of chicken*, MEAT SCIENCE, vol. 68, pages 155-162 (2004).
- Kang, Kyung R, et al., *Tocopherols, retinol and carotenes in chicken egg and tissues as influenced by dietary palm oil*, JOURNAL OF FOOD SCIENCE, vol. 63, no. 4, pages 592-596 (1998).
- U.S. Patent Nos. 6,610,867; 6,740,508; and 5,821,264.

* * * * *

Response to Arguments

Applicant's arguments filed 19 January 2007 have been fully considered but they are not persuasive.

35 USC 103

Applicants argue, "...it can be inferred that the transgenic plants of Eenennaam et al. did not have elevated levels of tocotrienols. *See* remarks/arguments, page 6.

The Eenennaam et al. reference explicitly claims transgenic plants with elevated levels of tocotrienol (*see* claims 21, 31, 55, 60, 68, 69, 73, 79, 87).

Additionally, each claim of an issued patent enjoys a presumption of validity (*see* 35 USC 282); this includes 35 USC 101, 112 (first and second paragraphs), 102, and 103. Thus, examiner respectfully submits that it may be inferred that the transgenic plants of Eenennaam et al. have elevated levels of tocotrienols.

*

Double Patenting

Regarding copending Application Nos. 11/153,463 and 11/530,075, applicants argue that the applications do not disclose or claim an animal diet using mixed tocotrienols alone. *See* remarks/arguments, pages 8-9.

The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > Mars Inc. v. H.J. Heinz Co., 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004) ("like the term comprising,' the terms containing' and mixture' are open-ended."). See MPEP 2111.03. Thus, examiner respectfully submits that the scope of the instant claims is commensurate with the claims of copending Application Nos. 11/153,463 and 11/530,075.

* * * * *

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

☆

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hasan S. Ahmed whose telephone number is 571-272-4792. The examiner can normally be reached on 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Humera N Sheikh
HUMERA N SHEIKH
PRIMARY EXAMINER